Remarks

Reconsideration of this Application is respectfully requested.

Claims 1, 3, 4, 6-9, 11-15, and 26-29 are pending in the application, with 1, 4, 7, 11 and 12 being the independent claims. Claim 7 is sought to be amended. Claim 18 is sought to be canceled without prejudice to or disclaimer of the subject matter therein. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the foregoing amendments and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Rejections under 35 U.S.C. §102

Charter-Lea

Claims 1 and 4 were rejected under 35 U.S.C. §102(e) as being anticipated by Charter-Lea, U.S. Patent No. 5,822,314 (Charter-Lea). Applicants respectfully traverse this rejection.

Chater-Lea does not teach or suggest every feature recited in Applicants' independent claims 1 and 4. In Chater-Lea, the base station transmits the timing indication (the frame number identification) to the mobile transceiver, and the mobile transceiver then signals the timing indication of the received signal back to the base station. (Chater-Lea, col. 5, lines 11-35). The base station calculates the timing correction from this timing indication which was received by the mobile transceiver from the base station and signaled from the mobile transceiver back to the base station.

In contrast, in Applicants' claimed invention, the mobile transceiver, rather than the base station, transmits an indication of the timing (i.e., the time slot) in which a burst transmission was made. The base station then calculates the timing correction value from the timing of reception of the burst transmission as received from the mobile transceiver together with the timing indication received in the burst transmission from the mobile transceiver. Hence, the additional step of having the base station transmit the indication, and requiring the mobile transceiver to echo this indication back are avoided.

Thus, Chater-Lea does not teach or suggest "receiving a burst transmission from the mobile transceiver in one of said time slots, the burst transmission including a time slot indication indicating the one of the time slots within which the burst was transmitted; and calculating from the timing of reception of said burst transmission a timing correction value for the mobile transceiver so as to synchronise the transmission timing of said mobile transceiver with a reference timing," as recited in independent claim 1. Furthermore, Chater-Lea does not teach or suggest "transmitting from the mobile transceiver a burst transmission in said selected time slot, the transmission including a time slot indication indicating the selected time slot; receiving at the mobile transceiver a timing correction value derived from the timing of the burst transmission; and adjusting the timing of a subsequent transmission by the mobile transceiver according to said timing correction value," as recited in independent claim 4.

For at least these reasons, independent claims 1 and 4 are patentable over Chater-Lea. Reconsideration and withdrawal of the grounds of rejection are therefore respectfully requested.

Moher

Claims 7-9 were rejected under 35 U.S.C. §102(b) as being anticipated by Moher, U.S. Patent No. 6,693,983 (Moher). Applicants respectfully traverse this rejection.

Moher does not teach or suggest every feature recited in Applicants' amended independent claim 7. Moher relates to the detection of radio signals and provides a method of synchronizing and detecting radio messages in noisy channel conditions. The method of Moher includes the steps of: (1) establishing frame synchronization, (2) processing soft unique word symbols to produce a coarse frequency estimate, (3) updating the frequency of the digital oscillator, (4) obtaining a fine tuning estimate using only the portion of the coarse frequency corrected burst samples corresponding to the unique word samples, (5) filtering the coarse frequency corrected sample, (6) estimating and correcting for phase and amplitude errors of all the symbols in the burst which have undergone coarse frequency and fine timing correction, and (7) fine frequency estimation based on resolving any remaining frequency ambiguities. (Moher, col. 4, line 38 - col. 7, line 10). In Moher, the frame synchronization algorithm of step (1) is applied only to that portion of the samples corresponding to the position in the burst of the unique word symbols plus any timing uncertainty in the position. (Moher, col. 4, lines 38-44).

In contrast, Applicants' amended claim 7 relates to controlling the transmission timing of a wireless transceiver. The transceiver, in claim 7, receives a timing correction value. The transceiver controls subsequent transmission according to both the timing correction value and a timing uncertainty value. The timing uncertainty value depends on the time elapsed since the transceiver received the timing correction value. In addition, the timing uncertainty value indicates the rate at which the timing of the transceiver is likely to change (i.e., the precision of the timing correction value received).

Thus, Moher does not teach or suggest a method for controlling transmission timing of a wireless transceiver including "controlling a subsequent transmission by the transceiver according to a timing uncertainty value as a function of time elapsed since reception of the timing correction value, wherein the timing uncertainty value indicates a likely modification of the timing correction value," as recited in amended claim 7.

For at least the above reasons, independent claim 7 is patentable over Moher. Claims 8 and 9 depend from claim 7. For at least these reasons, and further in view of their own features, claims 8 and 9 are patentable over Moher. Reconsideration and withdrawal of this ground of rejection are therefore requested.

Cooper

Claims 11-15 and 26-28 were rejected under 35 U.S.C. §102(b) as being anticipated by Cooper, U.S. Patent No. 5,646,947. Applicants respectfully traverse this rejection.

In the "Response to Arguments," the Examiner states that "the recitation 'communication comprising a data burst' has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone." Applicants respectfully disagree with the Examiner.

In general, a preamble limits the claimed invention if it recites essential structure or steps, or if it is "necessary to give life, meaning, and vitality" to the claim. *Catalina Mktg. Int'l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002)(quoting *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305 (Fed. Cir. 1999)). The

claim preamble "has the import that the claim as a whole suggests for it. In other words, when the claim drafter chooses to use both the preamble and the body to define the subject matter of the claimed invention, the invention so defined, and not some other, is the one the patent protects." *Eaton Corp. v. Rockwell Int'l Corp.*, 323 F.3d 1332, 1339 (Fed. Cir. 2003) (quoting *Bell Communications Research, Inc. v. Vitalink Communications Corp.*, 55 F.3d 615, 620 (Fed. Cir. 1995)). When limitations in the body of the claim rely upon and derive antecedent basis from the preamble, the preamble may act as a necessary component of the claimed invention. *Id.*

The preamble of claims 11 and 12 recite a "wireless link signal for wireless transceiver communication comprising *a data burst*." In claim 11, the second element recites "a data field carrying the data content of *the burst*." In claim 12, the second element recites "a data field carrying substantially all of the data content of *the burst*." Thus, the second element of claims 11 and 12 require an element identified and described only by the preamble of each claim. Thus, the preamble and the body are both used to define the subject matter of the claim 11 and claim 12 as opposed to reciting the intended use for an invention that is defined in its entirety by the body of the claim. Therefore, Applicants submit that the preamble limits claims 11 and 12.

Cooper does not teach or suggest every feature recited in Applicants' independent claims 11 and 12. In Cooper, "[e]ach voice frame including the corresponding [Unique Word] UW marking the leading frame boundary has 117 msec duration and is comprised of subframes. A superframe comprises 3240 bits having 480 msec duration and is separated into four voice frames, each including a UW". (Cooper, col. 4, lines 35-41). Thus, Cooper describes the transmission of a signal data frame between a first unique word and a second unique word being associated with a further data frame. The bit

stream transmitted consists of several of these data frames. In contrast, in Applicants' claimed invention the data field carries the whole data content of the burst. Thus Cooper does not teach or suggest "a data burst including in temporal sequence: an initial predetermined synchronisation sequence; a data field carrying the data content of the burst; and a final predetermined synchronisation sequence," as recited in independent claim 11. Cooper also does not teach or suggest "a data burst including in temporal sequence: a first predetermined synchronisation sequence; a data field carrying substantially all of the data content of the burst; and a second predetermined synchronisation sequence," as recited in independent claim 12.

For at least the above reasons, independent claims 11 and 12 are patentable over Cooper. Claims 13-15 depend from claim 11 and claims 26-28 depend from claim 12. For at least these reasons, and further in view of their own features claims 13-15 and 26-28 are patentable over Cooper. Reconsideration and withdrawal of this ground of rejection is therefore respectfully requested.

In addition, Cooper teaches various channel formats for SCPC voice mode, SCPC in-band signaling voice mode, SCPC data mode, SCPC in-band signaling data mode, and SCPC call setup mode channels (Cooper, FIGs. 2-7). In none of these formats does Cooper teach or suggest the use of a guard band. Therefore, Cooper does not teach or suggest "wherein the channel comprises a plurality of slots sequentially separated by a guard band," as recited in claim 15. For at least this further reason, dependent claim 15 is patentable over Cooper.

Chennakeshu

Claim 18 was rejected under 35 U.S.C. §102(b) as being anticipated by Chennakeshu, U.S. Patent No. 5,400,362 (Chennakeshu). Claim 18 has been canceled

by the above amendment, rending this rejection moot. Withdrawal of the rejection is therefore respectfully requested.

Rejections under 35 U.S.C. §103

Charter-Lea and Scott

Claims 3 and 29 were rejected under 35 U.S.C. §103(a) as being unpatentable over Charter-Lea in view of Scott. Applicants respectfully traverse this rejection.

Claim 3 depends from independent claim 1 and claim 29 depends from independent claim 4. The differences between the subject matter claimed in claims 1 and 4 and the disclosure of Chatter-Lea have been discussed above. Scott adds nothing to Chater-Lea that overcomes the deficiencies of Chatter-Lea relative to claims 1 and 29. For at least these reasons, and further in view of their own features, claims 3 and 29 are patentable over the combination of Chater-Lea and Scott. Reconsideration and withdrawal of this ground of rejection is therefore respectfully requested.

Charter-Lea and Kronz

Claim 6 was rejected under 35 U.S.C. §103(a) as being unpatentable over Charter-Lea in view of Kronz, WO 99/00931 (Kronz). Applicants respectfully traverse this rejection.

Claim 6 depends from independent claim 4. The differences between the subject matter claimed in claim 4 and the disclosure of Chatter-Lea have been discussed above. Kronz adds nothing to Chatter-Lea that overcomes the deficiencies of Chatter-Lea relative to claim 4. For at least these reasons and further in view of its own features, claim 6 is patentable over the combination of Chater-Lea and Kronz. Reconsideration and withdrawal of this ground of rejection is therefore respectfully requested.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Reply is respectfully requested.

Respectfully submitted,

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